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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,250	01/03/2002	Kevin D. Kroupa	A3648.0012/P333-A	4615

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EXAMINER

WALTON, GEORGE L

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/034,250

Applicant(s)
Kroupe et al

Examiner
George L. Walton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 20, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-50 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 26-50 have been considered but are moot in view of the new ground(s) of rejection. Note in the patent to Cranage, the dual valves moves in the same axial direction. The orientation of the valves, i.e., whether the first valve or second valve has the lower or upper seat is merely an obvious design expedient in view of the teaching of Cranage. The seats could be arranged as shown in the claimed device or as shown in Cranage and achieve the same claimed result. The applicant's attention is directed to column 1, lines 27-34 of Cranage and page 8, lines 10-21 that talks about the utilization of these devices in the medical or welding field with the supply source being oxygen. In column 3, lines 11-14, the outlet 24-26 is attached to some means, which obviously could be a pressure regulator in the environment of Cranage. It is well known in the art to utilized a pressure regulator attached to the outlet of a gas cylinder valve. The operative device could be a patient, torch or any other type of welding device.

The examiner disagrees with the applicants that Cranage does not teach a surge prevention dual path valve. Cranage obviously teaches a pilot or initial flow through the opening 21-22, and 44 by the first valve 46 that would equalize pressure and obviously prevents any high gas flow surges from the high pressure oxygen at the inlet 14-16 of Cranage. This would allow a smaller flow rate through valve 46 until the second valve 41 opens for a greater flow rate through opening 21-22.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26-27 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Cranage. The first and second valves are readable on elements 46 and 41, respectively. The piston unit is readable on element 34. The actuator is readable on elements 54, 62, and 66.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 28-29, 34-37, and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranage.

The type and shape of the valves and valve seats are merely obvious design expedient to one of ordinary skill in the art, at the time the invention was made. Note in the patent to Cranage, the dual valves moves in the same axial

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direction. The orientation of the valves, i.e., whether the first valve or second valve has the lower or upper seat is merely an obvious design expedient in view of the teaching of Cranage. The dual valves and seats could be arranged as shown in the claimed device or as shown in Cranage and still achieve the same claimed result. Cranage does teach a surge prevention dual path valve. Cranage obviously teaches a pilot or initial flow through the opening 21-22, and 44 by the first valve 46 that would equalize pressure and obviously prevents any high gas flow surges from the high pressure oxygen at the inlet 14-16 of Cranage. This would allow a smaller flow rate through valve 46 until the second valve 41 opens for a greater flow rate through opening 21-22. The limitations of claims 43 are merely obvious design expedients in view of the teaching of Cranage. The time between the initial flow rate and the second flow rate is a matter of obvious design choice, since the dual valves are operated manually. Also, the degree of rotation of the piston unit is a matter of obvious design choice to one of ordinary skill in the art, at the time the invention was made. It is clear from Cranage that the operator can release its grips on the actuator 66 during a first flow rate before a continuation or rotation of the piston unit 34 by re-gripping the actuator 66 to achieve the second flow rate.

Claims 30-31, 38 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranage as applied to claims 28-29, 34-37 and 39-44 above, and further in view of either Klinger-Lohr. The above claims are readable on the patent to Cranage with the single exception of having a dual path valve with a spring means for biasing a lower valve member toward a closed position and opens in an opposite direction of the closed position, while biasing the actuator in a direction opposite the closed direction of the lower valve member. In view of the teaching of Klinger-Lohr, it would be obvious to provide the above exception to the device of Cranage, by substituting the dual valve member assembly of Klinger-Lohr for the dual valve member assembly of Cranage, as taught by elements 1, 4- 19, 21-24 and 27-28, if desired. Such teaching provides no unobvious or unexpected

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results. The limitation of claim 31 is merely a matter of obvious design expedient in view of the teaching of Cranage. This would be obvious to one of ordinary skill in the art, at the time the invention was made.

Claims 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cranage in view of Bathe. The above claim is readable on the patent to Cranage with the single exception of utilizing a specific type of gas, such as nitrous oxide. The patent to Bathe teaches the above exception. In view of the teaching of Bathe, it would be obvious to one of ordinary skill in the art, at the time the invention was made, to provide the nitrous oxide gas for the oxygen gas of Cranage, if desired. Such teaching provides no unobvious or unexpected result.

Claims 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranage as applied to claims 28-29, 34-37 and 39-44 above, and further in view of view of Bathe et al. The above claims are readable on the patent to Cranage with the single exception of positively connecting a pressure regulator to a gas cylinder valve and the pressure regulator to a utilization device, such as a patient mask or nasal cannula. The patent to Bathe et al teaches the above exception. In view of the teaching of Bathe et al, it would be obvious to provide the above exception to elements 24-26 of Cranage as taught by elements 14, 20 and 22, if desired. Note column 1, lines 27-34 of Cranage which utilizes the oxygen gas in hospitals and medical resuscitation devices. Therefore, such teaching provides no unobvious or unexpected result.

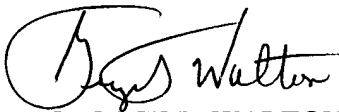
Claims 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bathe et al in view of Cranage. The above claims are readable on the patent to Bathe et al with the single exception of having a specific type of cylinder valve, i.e., a dual path surge prevention valve. The patent to Cranage teaches the above exception. In view of the teaching Cranage, it would be obvious to one of ordinary skill in the art, at the time the invention was made, to replace valve 12 of Bathe et al with the dual valving device of Cranage, as taught by elements 34, 41, 46, 54, 62, and 66, if desired. Such teaching provides no unobvious or unexpected result.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George L. Walton whose telephone number is (703) 308-2596.



**GEORGE L. WALTON
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER - 3700
ART UNIT - 3753**

GLW
November 29, 2002